

# ENF Environmental Notification Form

*For Office Use Only*  
 Executive Office of Environmental Affairs

EOEA No.: 13915  
 MEPA Analyst Anne Canaday  
 Phone: 617-626- 1035

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Betterwood Homes		
Street: 19 Dr. Bottero Road		
Municipality: Dennis	Watershed: <u>Cape Cod</u>	
Universal Tranverse Mercator Coordinates:	Latitude: 41.7261 Longitude: -70.1906	
Estimated commencement date: after permits	Estimated completion date: 1 year	
Approximate cost: \$500,000.00	Status of project design: 100 %complete	
Proponent: Betterwood Homes		
Street: 744 Main Street		
Municipality: Dennis	State: MA	Zip Code: 02638
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Lynne Whiting Hamlyn		
Firm/Agency: Hamlyn Consulting	Street: 690 Thousand Oaks Drive	
Municipality: Brewster	State: MA	Zip Code: 02631
Phone: (508)896-5203	Fax: (508)896-5203	E-mail: hconsult2@comcast.net

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No
- Has this project been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8))  Yes  No
  - a Special Review Procedure? (see 301CMR 11.09)  Yes  No
  - a Waiver of mandatory EIR? (see 301 CMR 11.11)  Yes  No
  - a Phase I Waiver? (see 301 CMR 11.11)  Yes  No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): N/A

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify \_\_\_\_\_)  No

List Local or Federal Permits and Approvals: Town of Dennis approvals:

See attached

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |                                 |                                       |  |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land   | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water  | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                              |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste                     |
| <input type="checkbox"/> ACEC   | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources       |

Summary of Project Size & Environmental Impacts	Existing	Change	Proposed	State Permits & Approvals
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions, <b>pending</b> <input type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	8497 sf, .195 acre			
New acres of land altered				
SF of impervious area	3158	-1266	1892	
Square feet of new bordering vegetated wetlands alteration		N/A		
Square feet of new other wetland alteration		N/A		
Acres of new non-water dependent use of tidelands or waterways		N/A		
<b>STRUCTURES</b>				
Gross square footage	1490	-98	1392	
Number of housing units	2	-1	1	
Maximum height (in feet)	14'	18'	32'	
<b>TRANSPORTATION</b>				
Vehicle trips per day				
Parking spaces	4	0	4	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	550	-110	440	
GPD water withdrawal				
GPD wastewater generation/ treatment				
Length of water/sewer mains (in miles)				

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify \_\_\_\_\_ )  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify \_\_\_\_\_ )  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify \_\_\_\_\_ )     No (see attached)

**HISTORICAL /ARCHAEOLOGICAL RESOURCES:** Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify \_\_\_\_\_ )     No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify \_\_\_\_\_ )     No

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:** Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify \_\_\_\_\_ )     No

**PROJECT DESCRIPTION:** The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

**See attached**

Betterwood Homes, 19 Dr. Bottero Road, Dennis, MA  
Discussion of Proposed Activity

**Project summary**

The applicant proposes the demolition and removal of an existing five-bedroom duplex; removal of existing concrete patio, bituminous parking area, and retaining wall; and the construction of a four-bedroom single-family dwelling, with attached garage, decks, dry block patio, upgraded septic system to include I/A and UV treatments, retaining walls, and reconfiguration of parking area at 19 Dr. Bottero Road, Dennis. The work is to occur within the buffer zone to a bordering vegetated wetland and salt marsh and within a coastal dune, barrier beach and land subject to coastal storm flowage.

The applicant proposes to demolish the existing five-bedroom, two-family dwelling built in 1940, and construct a four-bedroom, single-family dwelling. The existing building footprint is to be reduced from 1489.57 square feet (17.53 percent lot coverage) to 1391.66 square feet (16.38 percent lot coverage).

The habitable space is proposed to be increased 248.5 square feet, from 1389.5 sf existing to 1638.0 sf proposed. By right, under zoning regulations, the duplex could be rebuilt in its current footprint with an approximate increase of 576 square feet, by application of the 40 percent rule. However, that would necessitate locating the upgraded septic system in the rear yard, proximate to the salt marsh. Converting the usage from two-family to single-family allows the structure to be located further away from the street, which brings the structure into near compliance with property line setback requirements and allows the septic system to be constructed adjacent to the street. The front property line setback requirement for a duplex is twice that of a single-family dwelling; side and rear setbacks are increased also.

The existing impervious area is 3158 square feet (excluding the septic system). The proposed impervious area is 1892 square feet, including the decks and the retaining wall around the SAS.

The proposed deck is to be elevated on posts and will confine activity to a limited area.

The existing leaching facility is located approximately 49 feet from the BVW and extends beyond the property line. The upgraded system will locate the SAS entirely on the locus property outside of the 100-foot buffer zone to the BVW and salt marsh. The system will incorporate both I/A (FAST) and UV treatments.

The existing bituminous parking area is to be removed. The new parking area is to be constructed using pervious pavers, which will allow the drainage of surface run-off while providing a stable surface for snow and sand removal.

**Coastal resource areas**

The BVW consists of a narrow band of stiff-leaf quack grass (*Agropyron pungens*), poison ivy (*Toxicodendron radicans*), bayberry (*Myrica pensylvanica*), groundsel tree (*Baccharis halimifolia*), and seaside goldenrod (*Solidago sempervirens*), occurring upgradient of a salt marsh.

The salt marsh supports high tide bush (*Iva frutescens*), salt meadow cordgrass (*Spartina patens*), saltmarsh cordgrass (*Spartina alterniflora*), and seashore saltgrass (*Distichlis spicata*).

The project is located within land subject to coastal storm flowage as shown on the Federal Emergency Management Agency, Flood Insurance Rate Map for the area – Flood Zone A3, el. 11.0’.

The property occurs within a barrier beach as defined by 310 CMR 10.29(2): a narrow low lying strip of land consisting of a coastal dune, roughly parallel to the trend of the shoreline and separated from the mainland by a marsh system. The area is included on the Massachusetts Office of Coastal Zone Management, Barrier Beach Inventory, Sheet 40.

The property is located within a coastal dune as part of a barrier beach system between Cape Cod Bay to the north and a salt marsh to the south. As defined in CMR 10.28(2), coastal dune means any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm overwash. A coastal dune is defined similarly in the Dennis Rules and Regulations as a hill, mound, ridge or field, “composed of sediment, any portion or component of which touches upon and exchanges sediment with and is landward of a coastal beach”.

**Local regulatory agencies***Zoning Board of Appeals*

While the proposed project significantly reduces the noncompliance of the property, a Special Permit is still required under Section 2.4.1.2.C.2 of the Dennis Zoning Bylaw for a right elevation sideline setback of 10.5 feet. That request is scheduled to be heard by the ZBA on August 7, 2006.

*Old Kings Highway Regional Historic Committee*

The project has been approved by the Old Kings Highway Regional Historic Committee. A copy of the approval is attached.

*Board of Health*

The septic system has been upgraded to provide maximum feasible compliance with Title 5 and Town of Dennis Health Regulations, incorporating both I/A and UV treatments. Variance requests are scheduled to be heard by the Board of Health on June 8, 2006.

**Discussion of project conformance with Performance Standard 5 of Section 2 of the Town of Dennis Conservation Commission Rules and Regulations relative to the expansion of habitable space located within a coastal dune and barrier beach.**

Town of Dennis Conservation Commission Rules and Regulations state in Section 2(5) that there is to be no expansion of habitable space within a coastal dune *unless* the project proponent provides a preponderance of evidence from a credible source to document that the proposed expansion will not adversely effect the volume, form or function of the dune, and that the interests under the Bylaw will not be impacted.

The project site occurs on the southerly side of Dr. Bottero Road, which transects the coastal dune system, on property heavily impacted by existing development. The 8,497 square foot lot supports an existing duplex, concrete patio, paved and gravel drive, retaining walls and subsurface septic system. The coastal beach/primary dune interface is located on the north side of the road, approximately 200 feet from the front property line. The area has been historically altered by residential development, which has impacted the dune form and volume. Sediments move with northwesterly winds that deposit the sand inland (see attached letter report by Frank H. Durgin, P.E., dated November 23, 2001). The constant movement of sand from the beach towards the houses and road requires continual maintenance to keep the driveways and roads usable. There is no significant sediment supplied to the coastal system from the locus property.

**Relative to the interests of Massachusetts Wetlands Protection Regulations**

In accordance with 310 CMR 10.28(3), the proposed construction will not have an adverse impact on the coastal dune by:

*(a) affecting the ability of waves to remove sand from the dune*

The landward edge of the coastal beach is located approximately 200 feet from the front property line of the locus site, and the existing paved parking area, dwelling and concrete patio extend from the front property line to about 55 feet in to the lot. This portion of the dune, located furthest from the beach, does not erode in response to beach conditions.

*(b) disturbing the vegetative cover so as to destabilize the dune*

The dune volume has been historically altered by residential development. The proposed construction is located largely within the impacted area of the dune and will not have a significant adverse impact on dune volume. American beach grass (*Ammophila breviligulata*), bayberry (*Myrica pensylvanica*), Virginia rose (*Rosa virginiana*), black cherry (*Prunus serotina*), seaside goldenrod (*Solidago sempervirens*), pitch pine (*Pinus rigida*), aster (*Aster* sp.), red cedar (*Juniperus virginiana*) and St. John's wort (*Hypericum* sp.) occurs on the dune. Upon completion of the proposed construction all disturbed areas are to be vegetated with herbaceous plant species in kind with those existing on the site.

*(c) causing any modification of the dune form that would increase the potential for storm or flood damage*

Due to the historic alteration of the property, the dune form has been impacted by the construction of the dwelling, parking area and patio. The new dwelling and

appurtenances are to be constructed largely within the area already impacted by the residential development and will not increase the potential for flood or storm water damage. The structure shall be constructed in accordance with 780 CMR 3107.0 Flood-Resistant Construction, State Board of Building Regulations and Standards. The top of foundation at the crawlspace is to be at elevation 13.67 feet NGVD. The garage is to be constructed on a slab foundation at elevation 11.0 feet. The existing impervious area on the property is to be reduced by 1266 square feet, allowing for more percolation of surface waters.

*(d) interfering with the landward or lateral movement of the dune*

The existing building, patio and parking area cover the dune to preclude the contribution of sand from those areas. The dune to the rear of the property abuts the BVW adjacent to the salt marsh and is the portion of the dune located furthest from the coastal beach. The movement of the dune system originates from the northwest at Cape Cod Bay. The vegetated ridge abutting the BVW and salt marsh marks the southern limit of any sediment transport. Two-story dwellings occur to the west and east of the locus; a contained, mounded leaching facility is located on the street side of the dwelling to the east. The lateral movement of sediments is already impacted by existing construction on adjacent properties and will not be adversely impacted by the proposed construction.

*(e) causing removal of sand from the dune artificially*

The proposed construction will not cause the artificial removal of sand from the resource area. The proposed construction occurs largely within the footprint currently developed, and will have no significant impact on the dune form or volume.

*(e) interfering with mapped or otherwise identified bird nesting habitat*

The property is not located within rare species habitat as shown on the Estimated Habitat Map of State-Listed Rare Wetlands Wildlife, by the Natural Heritage and Endangered Species Program; neither is it known to be otherwise identified as nesting habitat. Any nesting habitat within the dune would be utilized by birds already acclimated to human activity within a residential setting. The proposed construction would not further impact this area.

**Relative to the Performance Standards of the Town of Dennis Wetlands Protection Bylaw**

Section 2(1): *maximize distance of structures from wetlands*

The property is located within a coastal dune of a barrier beach and within the 100-foot buffer zone of a BVW and salt marsh. Presently, a two-family dwelling with a paved parking area, concrete patio and subsurface septic system exist on the site. The proposal lessens the use of the property by replacing the duplex with a single-family dwelling and reducing the bedroom number from five to four. The construction is to be a minimum of approximately 51 feet from the BVW, as measured from the post-supported second-story deck. Maintenance of the structure as a duplex would have necessitated locating the septic system in the rear yard, proximate to the wetland resource areas. The proposal of a

single-family dwelling allows the SAS to be constructed outside of the buffer zone to the BVW and salt marsh.

Section 2(2): *septic system leaching facilities to be no closer than 100 feet to wetland*

A portion of the existing leaching facility is located off the site and its minimum setback from the edge of wetlands is approximately 49 feet. The proposed SAS is located outside of the buffer zone to the BVW and salt marsh. The system incorporates both I/A and UV treatments.

a. The retaining wall around the septic system shall be faced with stone to blend into the coastal environment.

b. The existing septic system is to be upgraded to maximum feasible compliance with Title 5 and Town of Dennis Health Regulations, incorporating I/A and UV treatment units.

Section 2(3): *altered drainage patterns not to impact wetland or groundwater resources*

There will be no alteration of drainage patterns. Proposed fill is restricted to the leaching facility within vertical retaining walls. There will be no sheet flow from surface run-off; water will percolate downward. The sandy sediments will allow rapid percolation of roof run-off, precluding the need for drywells or drip trenches. The drive is to be constructed with pavers, which will provide a stable parking surface for maintenance from sand and snow buildup, while allowing the percolation of surface waters through the voids. A natural ridge occurs upgradient of the BVW, which acts as a berm preventing run-off and the introduction of sediments into the wetland.

Section 2(4): *bulkhead for shoreline erosion control*

Not applicable.

Section 2(5): *expansion of habitable space within a coastal dune, beach or barrier beach*

As discussed herein.

Section 2(6): *aesthetic values*

Aesthetic/wetland scenic views are defined under Section 1 as, "The landscape setting/viewshed available to the public over, across or within wetland resource areas and their buffer zones." The project has received approval from the Old Kings Highway Regional Historic Committee (copy attached).

Section 2(7): *agriculture/aquaculture*

Not applicable.

Section 2(8): *natural erosion and sedimentation*

As discussed above, sediment transport occurs in a northwesterly direction from Cape Cod Bay to the inland. Dr. Bottero Road occurs between the property and the beach/primary dune system. The locus property is at the southern end of sediment deposition. The proposed building footprint and impervious area will be reduced, as well as the usage on the property. All disturbed areas will be vegetated with coastal plant

species as exist on and around the site. The project will have no impact on natural erosion and sedimentation.

*naturally occurring groundwater*

The existing SAS is located approximately 49 feet from the BVW. The proposed system will locate the leaching facility outside of the 100-foot buffer zone to the BVW and salt marsh and utilize both I/A and UV treatments, positively impacting the interest of groundwater protection.

*private water and public water supply*

The existing SAS is located approximately 49 feet from the BVW. The proposed system will locate the leaching facility outside of the 100-foot buffer zone to the BVW and salt marsh and utilize both I/A and UV treatments, positively impacting the interest of groundwater protection. Properties in the neighborhood are serviced by town water. The property is not located within a Well Field Zone II Level of Contribution.

*storm damage prevention*

The new dwelling and appurtenances are to be constructed largely within the area already impacted by the residential development and will not increase the potential for flood or stormwater damage. The structure shall be constructed in accordance with 780 CMR 3107.0 Flood-Resistant Construction, State Board of Building Regulations and Standards. The top of foundation at the crawlspace is to be at elevation 13.67 feet. The garage is to be constructed on a slab foundation at elevation 11.0 feet. The existing impervious surfaces on the property are to be reduced, allowing for more percolation of surface waters.

Section 2(9): *public recreational values*

Not applicable.

Section 2(10): *effect on wetland dependent wildlife habitat*

The construction will not negatively impact wetland dependent wildlife habitat. Wildlife species using the property have already adapted to impacts from surrounding residential use.

Section 2(11): *topography*

The construction is proposed largely within the footprint of existing structures.

Section 2(12): *resource area replication/compensation*

Not applicable.